

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015533**Date Inspected:** 08-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Gao Zhi Chun
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A

Bridge No: 34-0006**Component:** Tower & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

TOWER JETTY**MEASUREMENTS ON VERTICAL TRIAL ASSEMBLY SOUTH TOWER LIFT-2&3**

This QA Inspector carried out the dimensional verification on South Tower lift-2 & 3 to check the misalignment and gap between the interior splice plates and longitudinal stiffeners of skin 'A', 'B', 'C', 'D' & 'E'.

Measurements were recorded on the data sheet and submitted to the assigned task leader.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the dimensional verification of Longitudinal stiffener (Skin) assembly with the Splice plate stiffener of south tower lift-2/3, this Quality Assurance Inspector (QA) discovered the following issue:

- At the lower end of the splice plate stiffeners to longitudinal stiffeners, Misalignment and Gap were found more than the permissible limit as per the contract documents.
- Lift-2 Skin 'C' 1st longitudinal stiffener (From skin 'B') Misalignment – 5mm
- Lift-2 Skin 'C' 2nd longitudinal stiffener (From skin 'B') Misalignment – 10mm
- Lift-2 Skin 'C' 3rd longitudinal stiffener (From skin 'B') Misalignment – 7mm

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- Lift-2 Skin 'E' 1st longitudinal stiffener (From skin 'D') Gap – 14.5mm

Applicable reference:

As per approved “Tower Dimensional Control Plan”

For further information see below pictures:-

BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 1B located on South tower Lift-5 SSD1 – TL5 – 1E/F. Welder is identified as 040280. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld joint # 2B located on Lift-5 Splice Plate Stiffener SSD1 – SPSA5 – 13. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 1A located on Lift-5 Splice Plate Stiffener NSD1 – SPSA5 – 13. Welder is identified as 050289. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 24A located on South tower Lift-5 SSD1 – TL5 – 1F/F. Welder is identified as 040581. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 3A located on Lift-5 Splice Plate Stiffener ESD1 – SPSA5 – 7. Welder is identified as 046709. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 11 located on Tower Strut SD1 – STSA4 – 5 – 127M – 1. Welder is identified as 040656. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2112.

Weld joint # 3A located on Lift-5 Splice Plate Stiffener WSD1 – SPSA5 – 12. Welder is identified as 046704. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 3A located on Lift-5 Splice Plate Stiffener ESD1 – SPSA5 – 12. Welder is identified as 040614. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

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Weld joint # 1A located on Lift-5 Splice Plate Stiffener WSD1 – SPSA5 – 20. Welder is identified as 040667. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 10 located on Tower Strut WD1 – STSA4 – 5 – 127M – 1. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2112.

ORTHOTROPIC BOX GIRDER (OBG) LIFT-13 AT BAY#11

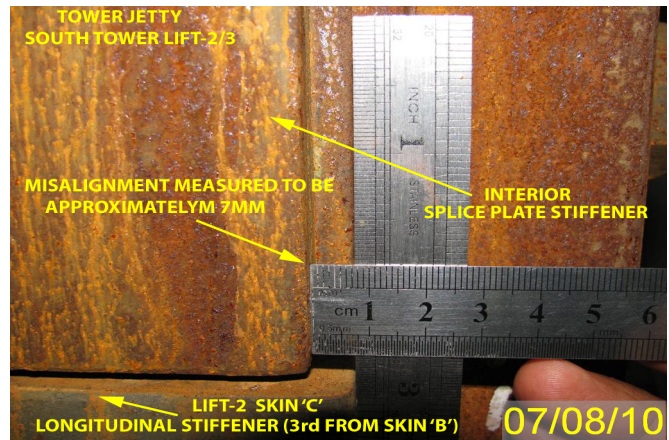
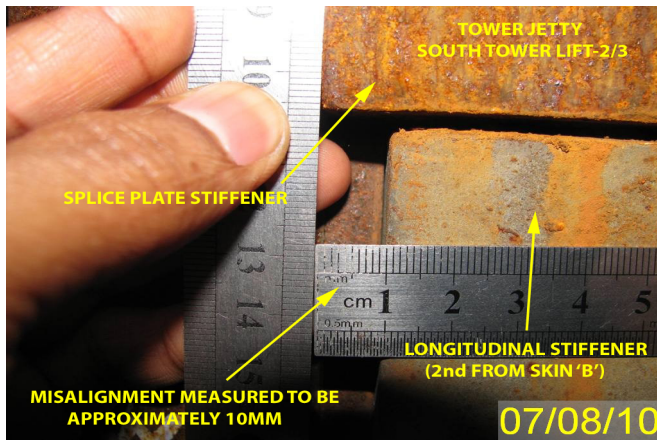
This QA Inspector observed the following work in progress

Flux Cored Arc Welding (FCAW):

Weld joint # 10 located on Side Plate SP3070 – 001. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Wang Chuang Xin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

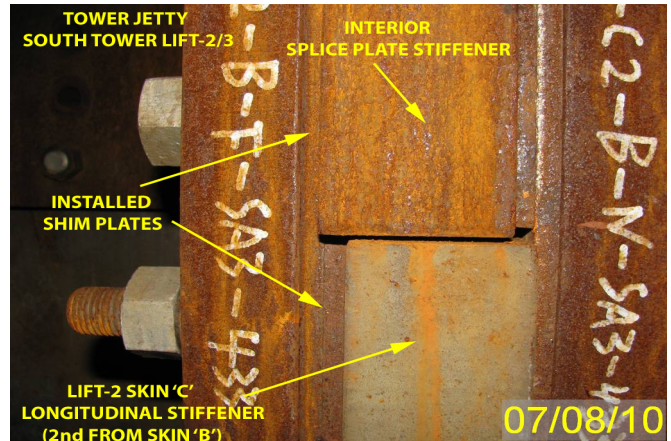
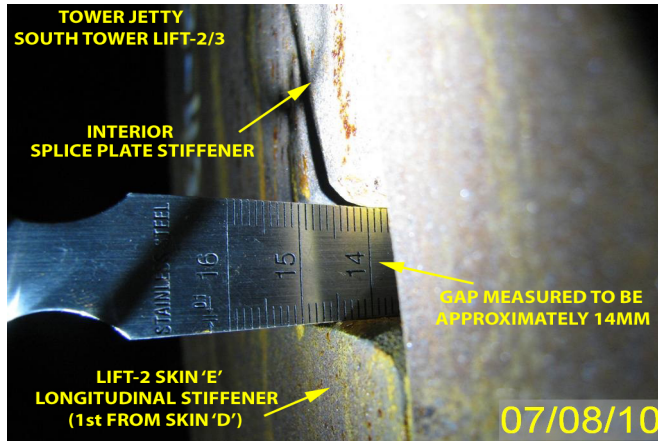
Weld joint # 29 located on Side Plate SP3070 – 001. Welder is identified as 040723. ZPMC Quality Control (QC) Inspector is identified as Wang Chuang Xin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer